

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/080555 A1

(51) International Patent Classification⁷: C12N 5/12, C12P 21/08, G01N 33/53, C12P 21/08

(21) International Application Number: PCT/KR2004/003286

(22) International Filing Date: 14 December 2004 (14.12.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2004-0011704
21 February 2004 (21.02.2004) KR

(71) Applicants (for all designated States except US): Korea Research Institute of Bioscience and Biotechnology [KR/KR]; 52, Eocon-dong, Yuseong-gu, Daejeon 305-806 (KR). MizMedi Hospital [KR/KR]; 701-4, Naebalsan-dong, Gangseo-gu, Seoul 157-280 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HONG, Hyo-Jeong [KR/KR]; #117-201, Clover Apt., Dunsan-dong, Seo-gu,

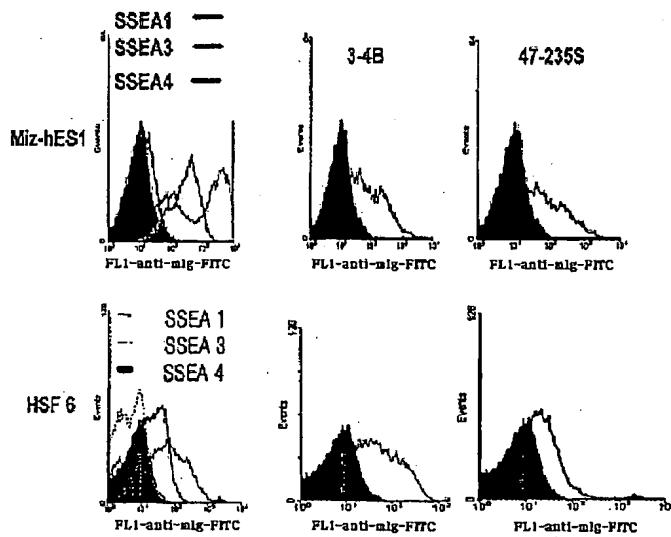
Daejeon 302-772 (KR). RYU, Chun-Jeh [KR/KR]; #133-1104, Hanbit Apt., Eoeun-dong 99, Yuseong-gu, Daejeon 305-755 (KR). SON, Yeon-Sung [KR/KR]; #301, Samsunggreenvill, Hongje 3-dong 270-50, Seodaemun-gu, Seoul 120-846 (KR). PARK, Jae-Hyun [KR/KR]; #6-507, Gwangmyoung Apt., Jungbang-dong, Gyeongsan-si, Gyeongsangbuk-do 712-060 (KR). KANG, Young-Kook [KR/KR]; #102-201, Worldcupfamily town, Jangdae-dong 323-2, Yuseong-gu, Daejeon 305-308 (KR). PARK, Jin-Sung [KR/KR]; #403, Venturetown, Sinsseong-dong 146-14, Yuseong-gu, Daejeon 305-804 (KR). CHOI, Hong-Seo [KR/KR]; #109-101, Hanmacul Apt., Songgang-dong, Yuseong-gu, Daejeon 305-756 (KR). YOON, Hyun-Soo [KR/KR]; #505, Maehong Samsung Apt., Dogok-dong, Gangnam-gu, Seoul 135-270 (KR). ROH, Sung-II [KR/KR]; #79-1301, Hyundai Apt., Apgujeong 1-dong 458, Gangnam-gu, Seoul 135-789 (KR). LEE, Jeoung-Eun [KR/KR]; #6-1201, Miseong Apt., Hagye-dong 280, Nowon-gu, Seoul 139-935 (KR). LEE, Jung-Bok [KR/KR]; #106-807, Poonglim Apt., Wonmi 2-dong, Wonmi-gu, Bucheon-si, Gyeonggi-do 420-112 (KR).

[Continued on next page]

(54) Title: MONOClonal antibody specific to cell surface protein of human embryonic stem cell



WO 2005/080555 A1



(57) Abstract: Disclosed are monoclonal antibodies that specifically bind to cell surface proteins of human embryonic stem (ES) cells and hybridomas producing the monoclonal antibodies. In detail, disclosed are monoclonal antibodies that bind cell surface proteins of human ES cells but do not bind to mouse ES cells, hybridomas producing the monoclonal antibodies, assay kits for undifferentiated human ES cells comprising the monoclonal antibodies, and compositions for removing undifferentiated human ES cells comprising the monoclonal antibodies.